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Complete if Known Substitute for form 1449/PTO 10/815,08 **Application Number** Filing Date March 31, 2004 INFORMATION DISCLOSURE First Named Inventor SALMAN AKRAM STATEMENT BY APPLICANT Art Unit 289 (Use as many sheets as necessary) Examiner Name 97-1363.5 Attorney Docket Number Sheet 1

	U. S. PATENT DOCUMENTS						
Examiner Initiats*	Cite No.1	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant		
	ļ	Number-Kind Code <sup>2 (7 known)</sup>			Figures Appear		
45	Α	<sup>US-</sup> 5,046,239	09/10/1991	Miller			
	В	<sup>US-</sup> 5,063,177	11/05/1991	Geller et al.			
	С	US- 5,172,050	12/15/1992	Swapp			
	D	<sup>US-</sup> 5,222,014	06/22/1993	Lin			
	Ε	<sup>US-</sup> 5,229,647	07/20/1993	Gnadinger	·		
	F	<sup>US-</sup> 5,236,551	08/17/1993	Pan			
	G	<sup>US-</sup> 5,249,450	10/05/1993	Wood et al.			
	Н	us- 5,404,044	04/04/1995	Booth et al.			
	ı	<sup>US-</sup> 5,420,520	05/30/1995	Anschel et al.			
	J	<sup>US-</sup> 5,426,072	06/20/1995	Finnila			
	К	<sup>US-</sup> 5,483,741	01/16/1996	Akram et al.			
	L	<sup>US-</sup> 5,484,647	01/16/1996	Nakatani et al.			
	М	<sup>US-</sup> 5,487,999	01/30/1996	Farnworth			
	N	US- 5,528,080	06/18/1996	Goldstein			
	0	us-5,541,525	07/30/1996	Wood et al.			
•	Р	<sup>US-</sup> 5,557,844	09/24/1996	Bhatt et al.			
	Q	<sup>US-</sup> 5,578,526	11/26/1996	Akram et al.			
T	R	<sup>US-</sup> 5,592,736	01/14/1997	Akram et al.			
LT	S	<sup>US-</sup> 5,607,818	03/04/1997	Akram et al.			

		FORE	IGN PATENT DOCU			
Examiner	Cite	Foreign Patent Document	Publication	Name of Patentee or	Pages, Columns, Lines,	
tritials*	No.'	Country Code <sup>2</sup> "Number <sup>4</sup> "Kind Code <sup>5</sup> (# known)	Date MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passeges Or Relevant Figures Appear	7
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Substitute for form	1449/PTO	Complete if Known			
		Application Number	W/815,083		
INFORM	ATION DISCLOSURE	Filing Date	March 31, 2004		
		First Named Inventor	SALMAN AKRAM		
STATEMENT BY APPLICANT		Art Unit	2891		
(Use	as many sheets as necessary)	Examiner Name			
Shoot 2	of 14	Attorney Docket Number	97-1363 5		

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Examiner Initials*	Cile No.	Document Number  Number-Kind Code <sup>2 (F knowe)</sup>	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Coturnas, Lines, Where Relevant Passages or Relevant Figures Appear
LI	T	<sup>US-</sup> 5,633,122	05/27/1997	Tuttle	
1	υ	<sup>US-</sup> 5,634,267	06/03/1997	Farnworth et al.	
	٧	<sup>US-</sup> 5,674,785	10/07/1997	Akram et al.	
	W	<sup>US-</sup> 5,686,317	11/11/1997	Akram et al.	
	X	<sup>US-</sup> 5,716,218	02/10/1998	Farnworth et al.	
	Υ	<sup>US-</sup> 5,739,585	04/14/1998	Akram et al.	
	AA	<sup>US-</sup> 5,781,022	07/14/1998	Wood et al.	
	AB	US- 5,783,461	07/14/1998	Hembree	
$T^{-}$	AC	<sup>US-</sup> 5,783,865	07/21/1998	Higashiguchi et al.	
	AD	<sup>US-</sup> 5,796,590	08/18/1998	Klein	
T	ΑE	<sup>US-</sup> 5,801,452	009/01/1998	Farnworth et al.	
	AF	<sup>US-</sup> 5,815,000	09/29/1998	Farnworth et al.	
	AG	<sup>US-</sup> 5,834,945	11/10/1998	Akram	
	АН	<sup>US-</sup> 5,869,974	02/09/1999	Akram et al.	
	Al	us- 5,870,289	02/09/1999	Tokuda et al.	
	AJ	<sup>US-</sup> 5,876,580	03/02/1999	Lykins	
	AK	<sup>US-</sup> 5,878,485	03/09/1999	Wood et al.	
1	AL	<sup>US-</sup> 5,896,036	04/20/1999	Wood et al.	
47	AM	<sup>US-</sup> 5,915,977	06/19/1999	Hembree et al.	

Examiner initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	Γ
		Country Code <sup>3</sup> "Number <sup>4</sup> "Kind Code <sup>5</sup> (# known)	MM-DD-YYYY	٠	Or Relevant Figures Appear	L
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Substitute for form 1449/PTO	Complete if Known			
Sussimilation form 17737 10	Application Number	6/815,083		
INFORMATION DISCLOSURE	Filing Date	March 31, 2004		
INFORMATION DISCLOSURE	First Named Inventor	SALMAN AKRAM		
STATEMENT BY APPLICANT	Art Unit	2891		
(Use as many sheets as necessary)	Examiner Name			
Sheet 3 of 4	Attorney Docket Number	97-1363.5		

			U. S. PATENT	DOCUMENTS	
Examiner Initials*	Cite No.1	Document Number  Number-Kind Code <sup>2 (7 known)</sup>	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
IT	AN	<sup>US-</sup> 5,929,647	07/17/1999	Akram et al.	
T	AO	<sup>US-</sup> 5,931,685	08/03/1999	Hembree et al.	
	AP	us- 5,936,847	08/10/1999	Kazle	
	AQ	<sup>US-</sup> 5,952,840	09/14/1999	Farnworth et al.	
	AR	<sup>US-</sup> 5,962,921	10/05/1999	Farnworth et al.	
7	AS	<sup>US-</sup> 6,013,948	01/11/2000	Akram et al.	
	AT	US- 6,040,702	03/21/2000	Hembree et al.	
	AU	US-6,107,109	08/22/2000	Akram et al.	
	AV	US- 6,107,119	08/22/2000	Farnworth et al.	
	AW	<sup>US-</sup> 6,114,240	09/05/2000	Akram et al.	
	AX	US- 6,162,997	12/19/2000	Memis	
	AY	<sup>US-</sup> 6,294,837 B1	09/25/2001	Akram et al.	
	AZ	<sup>US-</sup> 6,353,328 B2	03/05/2002	Akram et al.	
	BA	<sup>US-</sup> 6,356,098 B1	03/12/2002	Akram et al.	
	BB	us- 6,362,637 B2	03/26/2002	Farnworth et al.	
7	BC	US- 6,400,172 B1	06/04/2002	Akram et al.	
	BD	<sup>US-</sup> 6,417,685 B1	07/09/2002	Akram et al.	
	BE	<sup>US-</sup> 6,437,591 B1	08/20/2002	Farnworth et al.	
LT	BF.		09/17/2002 ;	Farnworth et al.	

		FORE	IGN PATENT DOCU	MENTS		
Examiner Initials*	Cite No.	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevent Passages	
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Substitute for form 1449/PTO			Complete if Known		
Substitu	us for form 1445	PIO		Application Number	10/815,083
INF	ORMATI	ON DIS	CLOSURE	Filing Date	March 31, 2004
STA	TEMEN	T BY A	PPLICANT	First Named Inventor	SALMAN AKRAM
				Art Unit	2891
	(Use as mai	ny sheets as n	iecessary)	Examiner Name	
Sheet	4	of	4	Attorney Docket Number	97-1363.5

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
41	BG	T. R. ANTHONY. "Forming Electrical Interconnections Through Semicondcutor Wafers", American Institute of Physics, 1981, pgs 5340-5349.	
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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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**Application Number** W/8/5,08 March 31, 2004 Filing Date First Named Inventor SALMAN AKRAM 2891 Art Unit **Examiner Name** Attorney Docket Number 97-1363.5

Examiner	Cite	Document Number	U. S. PATEN  Publication Date	Name of Patentee or	Pages, Columns, Lines, Where
initials*	No.	Number-Kind Code <sup>2 (7 Immed)</sup>	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear
LT	Α	<sup>US-</sup> 5,959,840	09/28/1999	Collins et al.	
	В	<sup>US-</sup> 6,082,605			
	С	US-6,372,624 B1	04/16/2002 07/08/2003 09/16/2003 10/28/2003	Farnworth et al.	
	D	US- 6,589,594 B1 US- 6,620,731 B1 US- 6,637,638 B1		Hembree	
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	No.1		MM-I	Date Applicant of Cited Document	Where Relevant Passages Or Relevant Figures Appear
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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Coi	Complete if Known						
Application Number	10/815,083						
Filing Date	03/31/2004 SALMAN AKRAM						
First Named Inventor							
Art Unit	2811 2891						
Examiner Name	hum Thon						
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45	A	<sup>US-</sup> 5,277,787	01/11/1994	Otani e	t al.		_
ıΤ	В	<sup>US-</sup> 5,473,120	12/05/1995	Ito et al			
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